SOME CHARACTERISTICS OF DEPARTMENT OF DEFENSE MEDICAL MALPRACTICE CLAIMS: AN INITIAL REPORT

by RICHARD L. GRANVILLE, MD, JD, MARGARET R. BUDDEKE, MHSA, MAJ JAN BOHNENKAMP, USAF, NC, CDR JAMES FITZSIMMONS, NC, USN, MAJ DONALD FOURNIER, MS, USA, COL ALFRED S. BUCK, MC, USA, COL R. S. CRAWFORD, III, USAF, MC, CAPT JOSEPH MILLER, MC, USN, LTC WILLIAM STRAMPEL, MC, USA, AND JOHN F. MAZZUCHI, PhD

From the Office of the Assistant Secretary of Defense (Health Affairs),Offices of the Surgeons General,Army, Navy,and Air Force, and the Department of Legal Medicine, Armed Forces Institute of Pathology

INTRODUCTION

Department of Defense (DoD) policy is to provide, through the constituent military branches, medical care of the highest possible professional quality. To support this policy, and to facilitate quality improvement efforts, in January 1991, the Department of Legal Medicine at the Armed Forces Institute of Pathology, Washington, DC, assumed its new mission of establishment and maintenance of a registry of all closed medical malpractice cases brought against DoD. The Department, in addition, receives, collates and analyzes risk management data which is provided by the individual services. Summary reports are provided to the Office of the Assistant Secretary of Defense (Health Affairs) on an annual basis, or as requested, concerning this risk management data.[1] The authority for the collection of this data is contained in DoD Directive 6025.13, dated 17 November 1988, and entitled "DoD Medical Quality Assurance." The Directive states that medical treatment facilities and dental treatment facilities "shall have risk management programs . . . and procedures to review all malpractice claims and potentially compensable events. Data shall be extracted from every closed malpractice claim and reported to the Assistant Secretary of Defense (Health Affairs)."[2]

This risk management database, alternatively known as the "Abstracts of Closed Malpractice Claims Database" or "Tort-2," was transferred to the Department of Legal Medicine as part of its new mission in early 1991. As of November 1991, the malpractice database contained 1,544 closed malpractice claims which had been brought against DoD health care providers. The database consists of all cases reported by the Surgeon General's Office of the respective Service to DoD (Health Affairs) since mid-1988. The specifics of data concerning error analysis and claims outcome have undergone minor changes during this time, and this has resulted in additional reporting requirements and the use of revised DD Form 2526, the case abstract for medical malpractice data.

The data extracted from closed malpractice claims are at times incompletely reported, resulting in different totals (N) for specific data elements, because of the difficulty involved in obtaining a high level of detailed medical and legal information from incidents occurring several years earlier. Significant improvements in the production of more complete data in the future are expected with the uniform use of both an improved form and a procedure manual. The intent of this initial report is to present some general characteristics of military medical malpractice cases based on closed claims reported to DoD (Health Affairs) from mid-1988 through November 1991.

HISTORICAL MALPRACTICE DATA

Prior DoD medical malpractice claims data concerning the annual number of claims filed (claims made) indicate, in Table 1 and Figure 2A, that the number of claims filed has remained relatively constant

at approximately 900 claims per year. A claim or SF95 describes the form that an individual or his attorney completes and sends to the appropriate JAG office. A single patient care incident may give rise to more than one claim being submitted, as will be discussed below. There have been less than seven claims filed annually for every 100 military physicians. This is based on a DoD end-strength for physicians of approximately 13,000,[3-6] and compares favorably with the civilian community. Data from the St. Paul Fire and Marine Insurance Company, a large civilian malpractice insurer, reveals approximately 13 claims per 100 physicians, per year, in the private sector. In 1990, St. Paul reported 12.4 claims per 100 physicians, and in 1989 13.6 per 100 physicians.[7] While part of this difference may be explained by the fact that the Feres Doctrine bars active duty personnel from suing the federal government,[8] differences in patient and provider populations may be a consideration. As seen in Figure 2B, the amount of money paid out for military malpractice claims rose steadily in the early 1980's and then leveled off later in the decade.

TRENDS IN CLAIMS MADE (FILED) PER 100 MDs

YEAR	NUMBER FILED*	TOTAL DOD END STRENGTH**	RATE/ 100 MDs
1986	895	13,269	6.7
1987	876	13,191	6.6
1988	995	13,226	7.5
1989	872	13,442	6.5

*The vast majority of claims involve alleged malpractice by physicians. Ten-fifteen percent of claims involve other health care providers.

**Includes active duty MD's and DO's according to Health Manpower Statistics, Fiscal Year 1986, 1987, 1988, and 1989.

TABLE 1

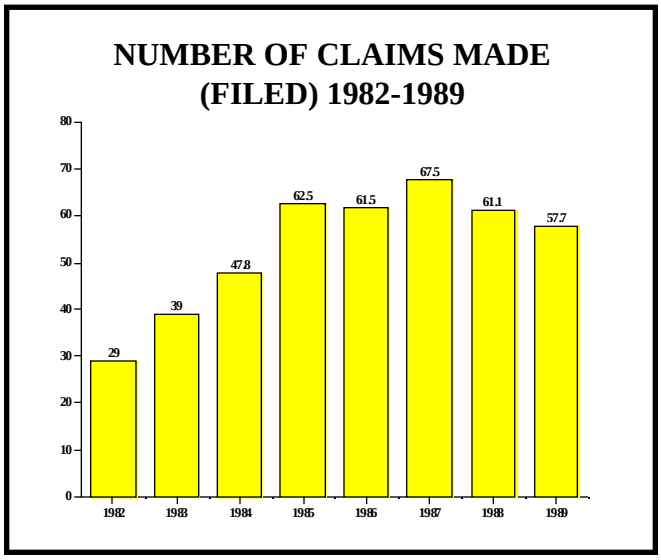

FIGURE 2A

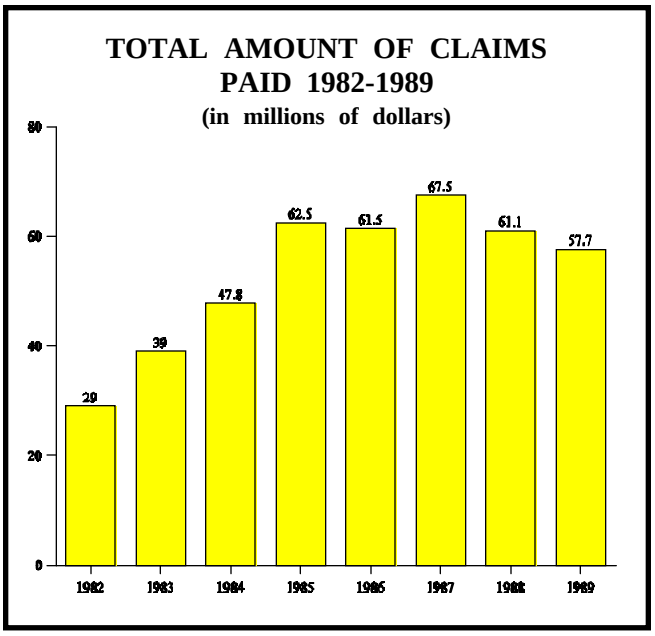

FIGURE 2B

PATIENT CHARACTERISTICS

Analysis of the closed malpractice cases reveals useful information about the characteristics of the patient population involved in medical negligence actions. As seen in Figure 3, patient age shows a wide variation with many claimants being less than one year of age. Figure 4 demonstrates that 61 percent of the patients were female. Table 2 indicates that most patients bringing medical malpractice claims against the United States were dependents of active duty service members with fewer cases being brought by retired service members and their dependents. Figure 6 (see page 4) shows, not unexpectedly, that the majority of patients suffering injury from alleged substandard care sustained either major injuries or death.

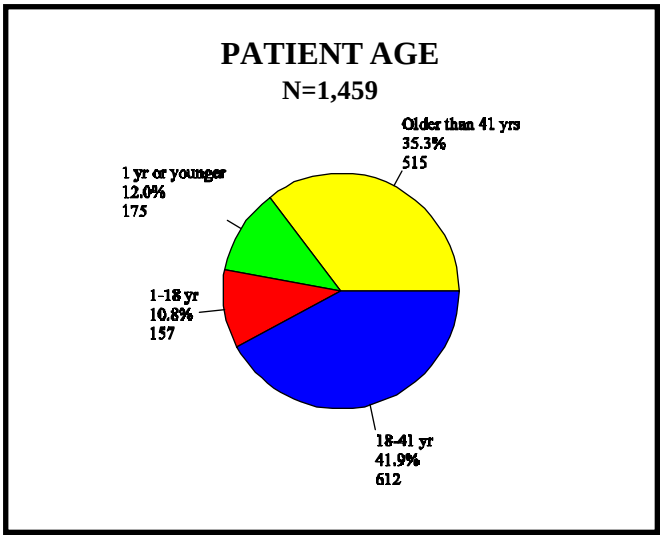

FIGURE 3

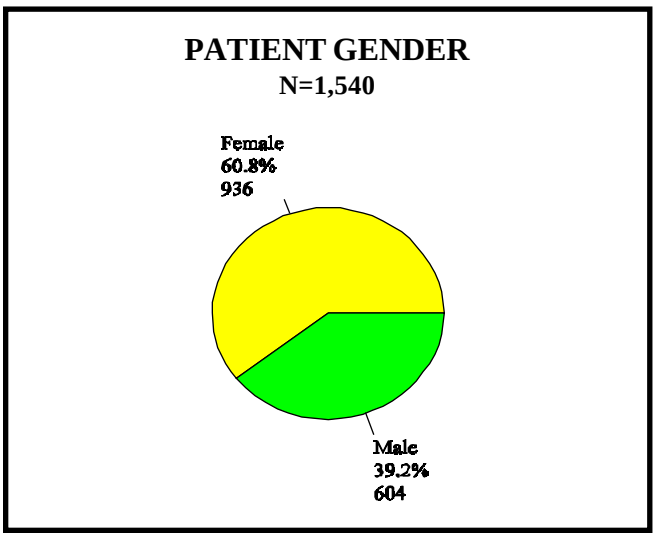

FIGURE 4

STATUS	NUMBER OF BENEFICIARIES(%)*	NUMBER OF CLAIMAINTS(%)
Active Duty	2,293,914 (25.1%)	78 (5.2%)
Active Duty Dependent	2,926,273 (32.0%)	804 53.7%)
Retired	1,632,872 (17.8%)	273 (18.2%)
Retired Dependent	1,944,635 (21.3%)	236 (15.7%)
Survivor/Other	351,434 (3.8%)	108 (7.2%)
TOTAL	**9,149,128 (100%)**	**1,499 (100%)**

*FY Health Data Summary, Defense Medical Information System, 29 April 1991

TABLE 2

CLAIM CHARACTERISTICS

Concerning the number of claims per malpractice case or incident, 78 percent of cases had only one claim per incident; 14 percent of cases had two claims, and eight percent of cases had three or more claims (see Table 3 next page). Several claims, of course, can be filed for a single alleged malpractice incident. For example, in a death claim, a claim by the estate or the survivors, or both, may be filed in some instances.

Table 4A (next page) illustrates the legal outcome of 1381 malpractice cases for which outcome data were available. Thirty-three percent of the cases were denied as nonmeritorious. Another 14 percent of cases were denied for other reasons, such as the statute of limitations or the Feres doctrine. Twenty-three percent were settled by the agency which initially handled the case. The claims services for Army, Navy and Air Force have a six-month period after the filing of a claim during which to settle or deny a claim. In the past, they had authority to settle claims of $25,000 or less. This limit has been increased to $100,000. If a claim is denied, the claimant may file suit in U.S. District Court. The case is then managed by U.S. Attorneys from the Department of Justice. In the past, the settlement limit authority there was $200,000, but this limit has been increased to $500,000. Thirty percent of the cases proceeded to the litigation phase and were managed by civilian attorneys from the Department of Justice. Thirteen percent of cases proceeded to trial and resulted

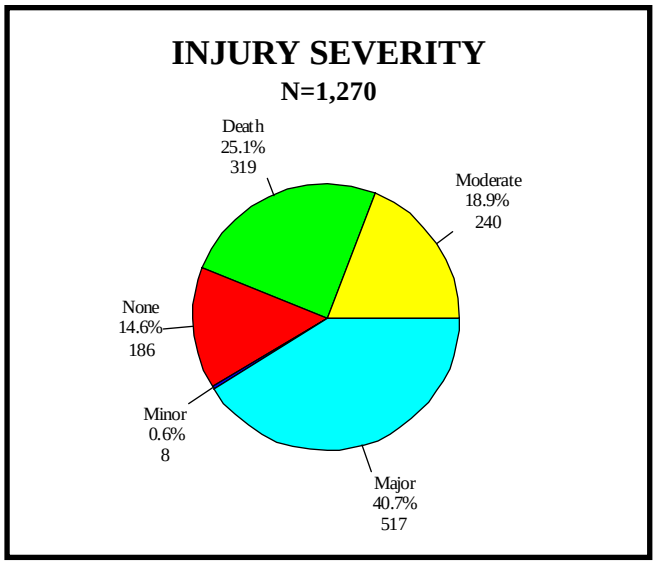

FIGURE 5

NUMBER OF CLAIMS FILED PER INCIDENT
(N=1,290)

	NUMBER	PERCENT
One Claim	1000	78
Two Claims	179	14
Three Claims	73	5
Greater than Three Claims	38	3

TABLE 3

in a decision for either the plaintiff or the United States, and 17 percent of cases were settled at the Department of Justice level. A well known civilian firm, Jury Verdicts Research, Inc. reported that plaintiffs in the private sector are successful in 48 percent of litigated cases involving medical malpractice claims.[7] Similarly, of the 185 DoD cases which proceeded to trial and ended with a decision for the plaintiff or defendant, 87 cases, representing 47 percent, resulted in a decision for the plaintiff. Tables 4B, 4C and 4D (next page) show the legal outcome for surgery-related cases, diagnosis-related cases, and obstetrics-related cases.

LEGAL OUTCOME
N=1,381

	NUMBER	PERCENT
Denied Administratively (658 or 47%)		
Dismissed	13	1
Statute of Limitations	59	4
Feres Barred	126	9
Non-Meritorious	460	33
Settled Administratively	313	23
Litigation (410 or 30%)		
Decision for Plaintiff	87	6
Decision for U.S.	98	7
Decision by D.O.J.	225	17
	1,381	100

TABLE 4A

Concerning the nature of the primary malpractice allegation, various codes for act or omission have been created and general categories are shown in Table 5 (next page). Forty-two percent of the 1514 cases studied centered on allegations concerning difficulties in diagnosis. These included such acts or omissions as failure to diagnose by concluding that the patient has no disease or condition, misdiagnosis of an existing condition, improper performance of a diagnostic test, a delay in diagnosis, or failure to obtain informed consent.

Twenty percent of the primary allegations were acts or omissions related to surgery. These included allegations of retained foreign bodies, operating on the wrong body part, improper performance of surgery, unnecessary surgery, delay in surgery, improper management of a surgical patient, and failure to obtain informed consent for surgery.

Thirteen percent of the sample cases were obstetrics related. These included failure to adequately manage pregnancy, improperly performed vaginal delivery, improperly performed cesarean section, a negligent delay in delivery, improperly managed labor, failure to identify and treat fetal distress, and wrongful life.

LEGAL OUTCOME/ SURGERY-RELATED CASES
N=287

	NUMBER	PERCENT
Denied Administratively (121 or 42%)		
Dismissed	3	1
Statute of Limitations	12	4
Feres Barred	23	8
Non-Meritorious	83	29
Settled Administratively	64	22
Litigation (102 or 36%)		
Judgment for Plaintiff	12	4
Judgment for U.S.	25	9
Judgment by D.O.J.	65	23
	287	100

TABLE 4B

LEGAL OUTCOME/ DIAGNOSIS-RELATED CASES
N=561

	NUMBER	PERCENT
Denied Administratively (252 or 45%)		
Dismissed	1	1
Statute of Limitations	15	3
Feres Barred	52	9
Non-Meritorious	184	32
Settled Administratively	141	25
Litigation (102 or 36%)		
Judgment for Plaintiff	36	6
Judgment for U.S.	37	7
Judgment by D.O.J.	95	17
	561	100

TABLE 4C

LEGAL OUTCOME/ OBSTETRICS-RELATED CASES
N=171

	NUMBER	PERCENT
Denied Administratively (93 or 54%)		
Dismissed	2	1
Statute of Limitations	16	9
Feres Barred	10	6
Non-Meritorious	65	38
Settled Administratively	33	19
Litigation (45 or 27%)		
Judgment for Plaintiff	13	8
Judgment for U.S.	10	6
Judgment by D.O.J.	22	13
	171	100

TABLE 4D

PRIMARY ALLEGATION
(N=1,514)

	NUMBER	PERCENT
Diagnosis-Related	637	42
Surgery-Related	312	20
Obstetrics-Related	197	13
Medication-Related	152	10
Anesthesia-Related	105	7
Treatment-Related	43	3
IV/Blood Product-Related	43	3
Miscellaneous	25	2

TABLE 5

Ten percent of the cases were medication-related. These allegations included failing to order appropriate medication, ordering the wrong medication, ordering the wrong dosage of the correct medication, improperly monitoring medication, failing to obtain informed consent for medication, administering the wrong medication, administering the wrong dosage, and using improper technique in administering the medication.

Seven percent of cases included acts or omissions which were related to the field of anesthesiology. These allegations included the failure to complete an adequate patient assessment, the failure to monitor the patient, the improper choice of anesthetic agent or equipment, negligent equipment use, improper intubation, and improper positioning of the patient.

Treatment related allegations comprised only three percent of the total and included such allegations as failure to treat, improper performance of a treatment or procedure, improper management of the course of treatment, premature end of treatment, and failure to seek consultation.

Intravenous and blood product-related allegations also comprise only three percent of the allegations. These included failure to insure the solution to be contamination free and utilization of an improper type of infusion.

Miscellaneous allegations, comprising two percent of the allegations, included inappropriate, unprofessional behavior of the clinician, breach of confidentiality or privacy, and failure to follow institutional policy or procedures.

The St. Paul Insurance Company, using somewhat different categories, surveyed 7,233 claims for error analysis during the years 1989 and 1990. It reported that 27.4 percent involved the failure to diagnose, 26.9 percent involved improper treatment, 25.3 percent involved surgical management, and 4.1 percent involved anesthesia. The leading allegation in the failure to diagnose category involved cancer (498 claims), while the leading allegation in the improper treatment category involved obstetrics (416 claims). Postoperative complications (922 claims) led all allegations in the surgical management category.[7]

PROVIDER AND FACILITY CHARACTERISTICS

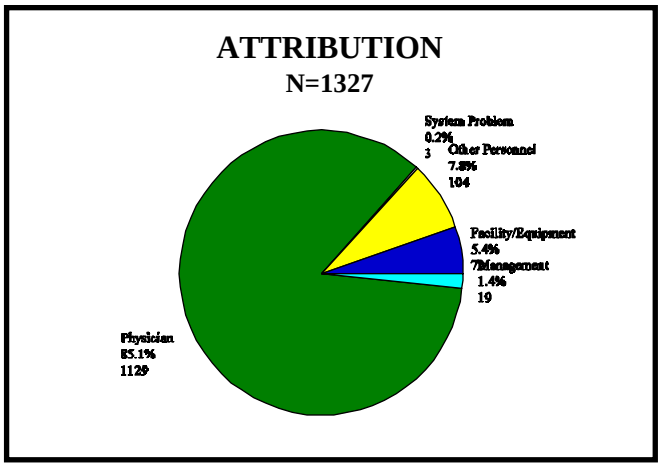

FIGURE 6

Figure 6 identifies the categories of provider and facility attribution. Only one attribution is made per incident. For example, of the 1,327 cases in which these data were collected, 85 percent (1,129 cases) resulted in attribution to the physician. Other medical personnel, such as nursing staff or technicians, received attribution in only 8 percent of cases. This is somewhat similar to results obtained by officials of the National Practitioner Data Bank who indicate that of 15,962 reported payments, 74 percent were on behalf of physicians, while 26 percent were made on behalf of dentists and other health care practitioners.[9] Unlike the National Practitioner Data Bank, DoD data are based on all closed claims and not only paid claims. Management and system problems were involved in an aggregate of only 2 percent of DoD cases.

The location in the facility where the incident occurred (Figure 7) was also analyzed in the database. In roughly 60 percent of the 982 cases in which these data were collected, the incident occurred in an inpatient setting, while the remainder occurred in an ambulatory clinic or other outpatient setting.

To contrast these data with the civilian experience, the St. Paul Insurance Company determined that of the 7,233 claims from 1989 and 1990 that it surveyed, 34.3 percent occurred in the physician's office or clinic, while 64.4 percent occurred in the hospital setting. In this case, the hospital setting includes the emergency department (9.5 percent of claims) and outpatient surgery facilities (2.9 percent of claims).[7]

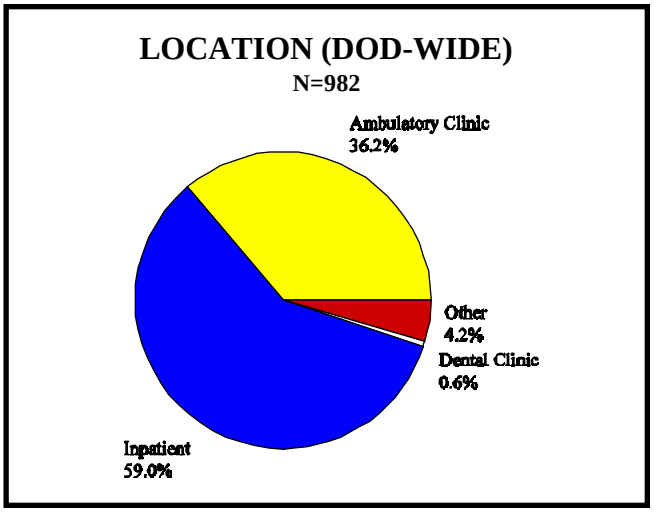

FIGURE 7

The primary provider's profession, portrayed in Table 6, was collected in 920 cases. The primary provider was a physician in 92 percent of cases. Two percent involved registered nurses, and the remainder consisted of nurse anesthetists, physician assistants, dentists, and various other providers.

Table 7 indicates the distribution of provider specialty. Obstetrics and gynecology, surgery and internal medicine are the most frequently represented of the specialties.

STANDARD OF CARE

Final determinations of the standard of care are made at the Surgeons General Offices in the respective Services. An evaluation of the entire case regarding the standard of care was made and collected in 1477

PRIMARY PROVIDER'S PROFESSION
(N=920)

	NUMBER	PERCENT
Medical Doctor (MD/DO)	846	92
Registered Nurse	18	2
Nurse Anesthetist	12	1
Physician Assistant	11	1
Dentist	10	1
Clinical Pharmacist	6	<1
Nurse Midwife	5	<1
Nurse Practitioner	4	<1
Podiatrist	3	<1
Optometrist	2	<1
Clinical Psychologist	2	<1
Physical Therapist	1	<1

TABLE 6

PRIMARY PROVIDER'S PROFESSION
(N=920)

	NUMBER	PERCENT	DUTY END STRENGTH	PERCENT
Obstetrics/Gynecology	174	21	494	4
Surgery	157	19	715	5
Internal Medicine	84	10	1240	9
Pediatrics	62	7	696	5
Family Practice	61	7	978	7
General Medical Officer	56	7	1051	8
Orthopedics	48	6	336	2
In Training	30	4	4255	31
Radiology	26	3	353	3
Emergency Medicine	213	3	204	2
Urology	16	2	132	1
Otorhinolarngology	15	2	143	1
Aviation Medicine	13	2	942	7
Anesthesiology	12	2	351	3
Neurology	10	1	112	1
Pathology	10	1	339	2
Ophthalmology	9	1	175	1
Psychiatry	9	1	400	3
Dermatology	3	1	127	1
Underseas Medicine	1	1	115	1
Physical Medicine	0	0	33	1
Preventive Medicine	0	0	274	2

TABLE 7

cases, and the standard of care was met in 65 percent of cases, and was not met in 30 percent of cases (see Figure 8). This indicates that the majority of malpractice cases involve reasonable medical practice, as viewed by reviewers in our system. In a small minority of cases, the standard of care was determined to be indeterminate because of lack of information available to the reviewer.

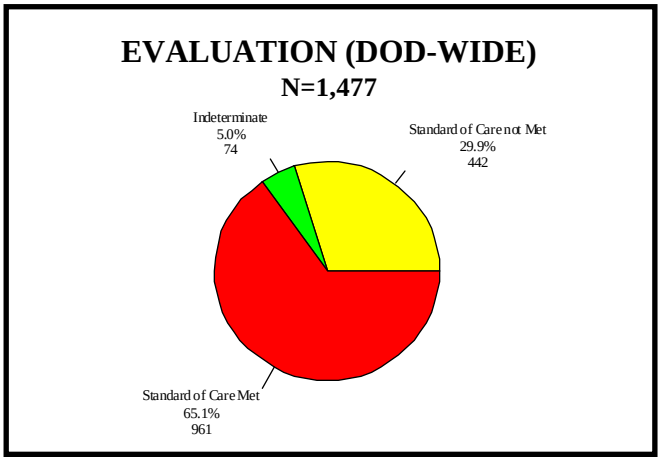

FIGURE 8

DIAGNOSES INVOLVED IN MALPRACTICE

Figure 9 (next page) illustrates the categories of diagnostic groups using the ICD9-CM Coding System of seventeen diagnostic groups. The most commonly represented diagnostic groups include pregnancy and childbirth, neoplasms, and genitourinary system problems. The twenty most common diagnoses which appear in the database, also using the ICD9-CM Coding System, are listed in Table 8 (next page). The ten most frequent procedures involved in DoD malpractice cases are included in Table 9 (next page). Obstetrics-related diagnoses and procedures are heavily represented.

Cases involving ischemic heart disease in an ambulatory setting have been evaluated by the Department of Legal Medicine in a previous study funded by the Robert Wood Johnson Foundation. Our findings indicate that the primary deficiency in many cases is lack of documentation of an appropriate history concerning chest pain.[10]

The most common specific neoplasms involved in malpractice cases included cancer of the breast, lung and colon. The Physician Insurers' Association of American has conducted specific studies involving these three diagnoses.[11,12,13] The Department of Legal Medicine likewise is targeting these areas for future specific review.

PAYMENT INFORMATION

Table 10 lists the number of cases and amounts paid for various payment ranges. Twenty-four cases or 4 percent of the total (those involving payment greater than $1M), account for 47 percent of the amount paid for alleged medical malpractice. Thirty-three percent of the cases (those with payment greater than $100,000) account for 90 percent of the amount paid for alleged medical malpractice.

COMMENT

Closed claims analysis can be used to identify areas of potentially preventable medical injury.[14] The malpractice database is a useful tool for the Department of Defense as part of its quality improvement program. The analysis of closed claims through the risk management database highlights areas for focused studies, utilizing the case files contained in the Department of Legal Medicine's repository of closed cases. The repository is unique in that no other large collection of closed (hard copy) cases is maintained in the public or private sectors for research purposes. Studies can focus on specific specialties, such as obstetrics or surgery, or on specific diagnoses such as breast cancer or appendicitis. That we can now target specific areas for more in-depth review using the actual medical records and related medical-legal documents from the closed claims repository makes this general database still more valuable. Further focused studies will be the subject of subsequent articles. It is obvious that DoD claims experience parallels that of the civilian sector in specialties and procedures involved in malpractice allegations.

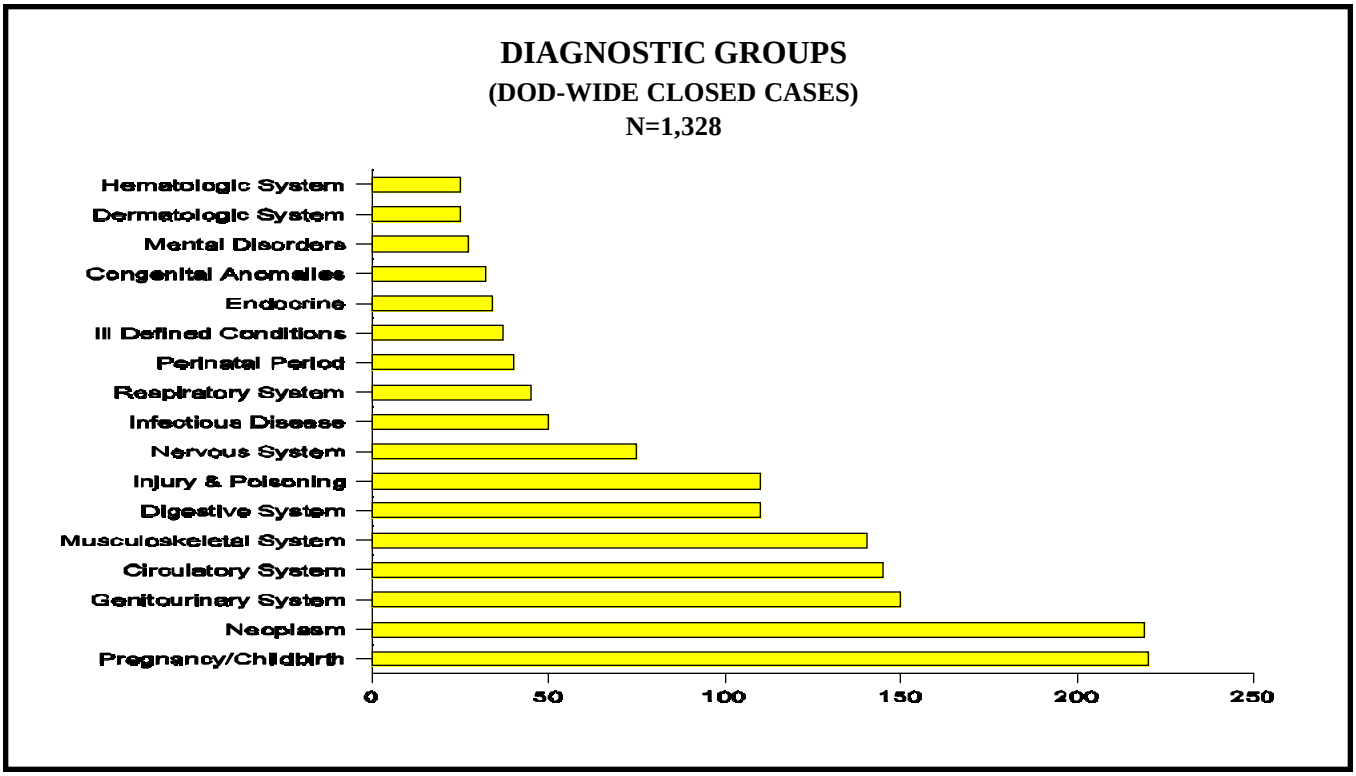

FIGURE 9

TWENTY MOST COMMON DIAGNOSES
(BASED ON 1,428 CASES)

	NUMBER
Labor and Delivery	70
Perinatal Conditions	60
Fractures	56
Ischemic Heart Disease	53
Cancer of Breast	43
Musculoskeletal & Soft Tissue Deformities	38
Complications of Pregnancy	36
Back Disorder (Disc Disease)	27
Cancer of Lung	24
Appendicitis	24
Female Genital Tract Pain	23
Procedure Complication	20
Hernia of Abdominal Cavity	17
Gallbladder Disease	17
Meningitis	15
Neoplasm of Unspecified Nature	15
Ectopic Pregnancy	14
Cerebrovascular Disease	14
Cancer of Colon and Rectum	13
Asthma/COPD	13

TABLE 8

TEN MOST COMMON PROCEDURES (DOD-WIDE)
(BASED ON 889 CASES)

	NUMBER
Cesarean Section	40
Total Abdominal Hysterectomy	33
Manually Assisted Delivery	27
Appendectomy	13
Mastectomy	11
Insertion of Endotracheal Tube	9
Vaginal Hysterectomy	8
Coronary Artery Bypass Surgery	8
Cholecystectomy	7
Episiotomy	7
Spinal Cord Surgery	6

TABLE 9

It is now clear that such a database can be maintained reliably for a large health care organization at a relatively low cost. Future efforts in malpractice claims trend analysis will center around database element refinement. This will permit future analyses and comparisons

to be made with ever yet increasing confidence. For example, specialty designations will be further developed to identify certain subspecialties such as neurosurgery or thoracic surgery. In addition, specific studies of small claims under $25,000-$50,000 are being undertaken to determine some characteristics of this subset of claims. Finally, with the development of a companion repository of closed malpractice cases for the Department of Veterans Affairs and the Department of Health and Human Services, comparisons with DoD data will be possible in the future. The creation of a general federal malpractice database will be necessary and should prove extremely useful in obtaining a better understanding of the characteristics of medical malpractice in the federal sector.

AMOUNTS PAID (DOD-WIDE) 1988-1991
N=589

DOLLAR AMOUNT	NUMBER	PERCENT	SUM	PERCENT
0 - 10,000	115	19	19669,962	1
10,001 - 25,000	145	25	2,949,755	2
25,001 - 50,000	61	10	2,419,284	2
50,001 - 100,000	77	13	5,976,470	5
100,001 - 200,000	86	15	13,471,467	11
200,001 - 500,000	51	9	17,657,776	14
500,001 - 1,000,000	30	5	22,379,675	18
1,000,001 - 12,000,000	24	4	57,106,507	47
		TOTAL AMOUNT PAID	**$122,630,896**	

TABLE 10

REFERENCES

1. Armed Forces Institute of Pathology. Mission Statement: Department of Legal Medicine. Washington, DC: Armed Forces Institute of Pathology; 1991.

2. US Department of Defense. DoD Medical Quality Assurance: Directive 6025.13. Washington, DC: US Department of Defense; May 1988.

3. US Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports. Health Manpower Statistics. Washington, DC: US Department of Defense; 1986: Format 17.

4. US Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports. Health Manpower Statistics. Washington, DC: US Department of Defense; 1987: Format 17.

5. US Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports. Health Manpower Statistics. Washington, DC: US Department of Defense; 1988: Format 17.

6. US Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports. Health Manpower Statistics. Washington, DC: US Department of Defense; 1989: Format 17.

7. Medical Services Division, St. Paul Fire & Marine Insurance Company. Physicians and Surgeons Update: Annual Report to Policyholders. St. Paul, MN: The St. Paul Companies Inc; 1991:1-13.

8. *Feres v. U.S.,* 340 U.S. 135 (1950).

9. Bureau of Health Professions, Division of Quality Assurance, Health Resources and Services Administration, Public Health Service. Cumulative Data Bank Statistics Summary: Sep 1, 1990-Aug 30, 1991. Rockville, MD: Public Health Service; 1991.

10. Granville R. Negligence in the emergency department - management of chest pain. Legal Medicine Open File. 1991; 91-2:1-6.

11. Physician Insurers Association of America. Breast Cancer Study. Harrisburg, PA: Physicians Insurers Association of America; Mar 1990.

12. Physician Insurers Association of America. Lung Cancer Study. Harrisburg, PA: Physician Insurers Association of America; Mar 1992.

13. Physician Insurers Association of America. Colon Cancer Study. Harrisburg, PA: Physicians Insurers Association of America; May 1991.

14. Kravitz R, Ralph J, McGuigan K. Malpractice claims data as a quality improvement tool. JAMA. 1991; 266:2087-2092.